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DEVOTED TO
PROFESSIONAL
BUSINESS
EDUCATION

THE DELTA PI EPSILON JOURNAL

A quarterly devoted to research, scholarship and leadership in business education

The journal invites contributions from business educators — members of the fraternity or non-members — from businessmen and women, and from educators in disciplines fundamental to progress in business education. Manuscripts should deal with the theory, practice and research in business education or fields related to it and should be addressed to the Editor.

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Special Reprint Policy – An Experiment!

Articles like the Stolurow analysis in this issue can serve many useful purposes. As an aid to in-service training, articles can be distributed by supervisors and department heads to their staff. Teacher education classes, especially at the graduate level, can be given supplementary materials that are to be returned for use in subsequent classes.

As an experiment in providing a unique service in business education, reprints of the Stolurow article, contained in this issue, are available at cost. They may be ordered on the following basis:

1. Reprints of each article must be ordered in lots of 25, each lot costing $2.00.
2. Reprints of other articles are *not* available until demand will support the press charges involved in picking up old plates.
3. Orders received after May 7, 1959, cannot be accepted. Orders will be shipped prior to May 28, 1959.
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Seven Concepts for Teachers

THERE ARE SEVEN broad concepts that seem to me to be important, regardless of the level on which we teach – elementary, high school, or in institutions of higher learning. These beliefs have no claim to originality. As a matter of fact, I would dare say that these beliefs are indeed your beliefs. At least, I certainly hope that they are. I believe they must be regarded as truths by all who teach in America, because I believe they need to undergird our thinking about education, and because I believe we need to relate our actions more often to these truths. In any event, this I believe . . .

DEMOCRACY AND FREE ENTERPRISE

1. Our democracy and its free enterprise systems is now and will continue to be strong. No nation in recorded history has created for itself out of a wilderness, a government, a culture, a society – built upon freedoms – that has played so important a role in world leadership. Totalitarianisms have come and gone – some lingering longer than others; but surely, the shortest of life for a totalitarian government is too long for those persons who are subjected to the oppression which is characteristic of that kind of government.

Man is by his nature a creative, adventurous, imaginative being. Man seeks personal recognition and rewards for his achievements yet, by choice as well as by nature, he wishes to live as an integral part of his society. This unique status of the individual within a society can, in my opinion, best be realized in a democracy – a democracy where fundamental freedoms prevail – where these freedoms may on occasions be challenged but where these freedoms may *never* be revoked.

As inseparable as fish and water, as human life and a heartbeat, is our democracy as conceived by our founding fathers and our free enterprise business system. Business – for which we seek to prepare young people – is that dynamic and important economic phase of our existence which like democracy itself is built – and becomes strong – on the foundation of freedoms.

This material was originally presented in an address to the Georgia Business Education Association and is reprinted by permission from the *Mississippi Educational Advance*.

I speak of democracy and our free enterprise system because I believe in them and because I believe young people especially should understand how life in America is different from that of many other nations – that our standard of living is higher than that of any other nation on the earth – that we enjoy more of the material comforts and luxuries than any other nation on the earth – that we enjoy greater freedoms than any other nation on the earth. All this we want to preserve!

MORALS AND ETHICS

2. I believe religious principles, high character and ethical conduct should undergird all that we do – in business, in the classroom, in personal and social relations one with the other, and indeed in our own personal thoughts which may not be known to anyone but ourselves. Aside from the justification of religious principles of and in itself, research studies conducted to determine the characteristics of successful persons have shown them to be Church-going and of high principles. The Jekylls and Hydes may momentarily appear to gain certain advantages, but in the long run they find no real claim to greatness.

We have raised our standard of living from a materialistic point of view, but have we kept pace in other ways that are just as important, if not more important? For instance, are our homes scenes of gracious living, are they the sources of strong character development for our citizens of tomorrow, are they havens of companionship, love, and mutual understanding?

WE MUST IMPROVE

3. I believe in a strong, sturdy type of education for our boys and girls. I believe in educating all of our people broadly in general areas of learning, and deeply in specific areas of learning. In my opinion, education in this country has made tremendous advances in the past 30 or 40 years. These advances have come about in spite of a general public that has been more or less disinterested in schools and their important contribution to the present and future destiny of our people.

This picture has recently changed and if this newly awakened interest in education by the general public continues, the next two or three decades should reflect changes in education about which teachers have dreamed for years. Teachers, who we assume are all professional educators, have a tremendous responsibility in directing

this awakened interest of the general public in the directions that are consistent with the best professional thinking that is available. The challenge is ours to restudy the important role of education – yes, this includes a restudy of the important role of business education as a part of our total program of education.

ADEQUATE FINANCING

4. I believe we must find some way, to finance adequately education in all sections of our country. Brains are where you find people and people are widely dispersed, so it is important that we not only raise the level of education generally, but at the same time we equalize at this high level educational opportunities throughout the United States.

Walter Lippman emphasized this point when he said: "So we have come to the point where we must lift ourselves as promptly as we can to a new and much higher level of interest, of attention, of hard work, of care, of concern, of expenditure, and of dedication to the education of the American people. We have to do in the educational system something very like what we have done in the military establishment during the past 15 years. We have to make a break-through to a radically higher and broader conception of what is needed and of what can be done. Our educational effort today, what we think we can afford, what we think we can do, how we feel entitled to treat our schools and our teachers – all of that – is still in approximately the same position as was the military effort of this country before Pearl Harbor."

This business of education is important business – it is big business. It is going to get much bigger. The public must be caused to think in terms of this bigness. The two best reasons imaginable can be advanced for truly adequate support of education – economic survival and personal survival. It is generally recognized that the economic level enjoyed by a nation is in direct relation to the educational level of that nation.

The other which apparently has only recently been aware to the public, is that of personal survival. The development and application of America's brain-power in all types of constructive endeavors is greatly needed. We have had too much inertia. As a people we have tended to become complacent – leaving well enough alone, we have pampered our youth, we have encouraged softness and weakness of purpose and of character. The public is coming to realize this, and let us hope, the public will provide the financial means for building

this strong, sturdy education. Teachers must give direction to this movement forward.

TO RECRUIT AND RETAIN

5. The future of America, and the future of education, is not dependent upon money alone. America cannot and will not be any stronger than are those who give their lives to teaching.

I believe we must recruit and retain the best for the important profession of teaching. We are not doing this now.

Half of the young men and women who began teaching in the U. S. last year expect to stop teaching within five years, according to an Office of Education survey. Further, only 28% of the men and 14% of the women say they plan to make a life work of classroom teaching.

"Not only is the country losing a large number of qualified teachers after just a few years of teaching," says Lawrence G. Derthick, commissioner of education, "but many young men and women who are trained to teach fail to take teaching positions. Thirty percent of those who were graduated in 1956 with qualifications to teach did not enter the teaching profession."

There is now a shortage of some 135,000 qualified teachers, according to Derthick.

Obviously, and as we all know, the big stumbling block in recruiting and retaining teachers is money; however, that is not all. Many of us who are now in the profession are not good ambassadors for our profession. We need to be proud of our profession – recognizing its weaknesses but at the same time being aware of its strengths. We must continually rededicate ourselves to our work – we must be proud to be a teacher! In my opinion, it is as noble a work as is known to mankind. It has been said that "the teacher has the greatest profession, for through his (or her) hands pass all members of every profession."

There are instances where capable young persons, who might be interested in becoming a teacher, are actually discouraged from entering the profession by teachers themselves. These teachers are usually engaged in teaching primarily for the pay check alone – as small as that may be. Usually, they are wishing they were doing something else – and no doubt, they should be.

In my opinion we will never have a great program of public education in this country until we can interest capable young persons to enter a rigorous program in preparation for teaching. Preparation

for teaching is not a secondary thing – it must be approached by would-be teachers as a primary activity. Teaching is a work that we deliberately prepare for and deliberately undertake. Preparation for teaching or entering the profession should not be undertaken simply because other things we would rather do did not materialize. To help us recruit and retain the best for teaching, leads to my sixth point:

NEED STRONGER ASSOCIATIONS

6. I believe we must build strong professional associations of informed, enthusiastic, and actively participating members. I speak of the "profession," when actually we have not fully reached professional status – we perhaps should think of ourselves as quasi-professional. One reason we are not fully professional is that our associations are not sufficiently strong, due to lack of numbers for one thing, and also due to the fact that often they do not forcefully stand for something.

As with individuals, it is much more important that we stand for something rather than being against something. It has often been said that the individuals we remember as we grow older are those we have known who stood for something. Persons who are always against something are soon forgotten. So it is with professional associations. Those that will strongly stand for something and will exercise all of the powers that can be mustered to realize these objectives will move the status of those who teach far along the line toward becoming professional.

There is evidence that this is taking place. A proposal was made in Chicago by Dr. T. M. Stennitt, Executive Secretary, of the National Commission on Teacher Education and Professional Standards, whereby certification would be taken out of the hands of state departments of education, with major responsibilities in this connection being placed upon institutions that prepare teachers and upon associations in admitting persons to membership. The plan would work – if it will work – very much as does the medical profession. A would-be teacher will be automatically certified upon graduation from an "approved institution" for teacher education – just as a medical doctor is licensed to practice medicine upon graduation from an approved medical school. As with a doctor who wishes to specialize in surgery, he seeks to qualify for membership in the American Association of Surgeons. The requirements for membership in this association are high, but his profession requires this

membership and so does the general public, if he is to practice surgery. Likewise, under Mr. Stennitt's proposal a fully qualified teacher of business subjects would need to show that he had gained membership in a recognized association of business teachers.

My point is: Are our associations strong enough to assume this responsibility? It will be a great day for our profession when we as a professional group can have a real voice in saying who is and who is not qualified to teach. A great day, that is, if we are big enough and strong enough, to assume the responsibility and the consequences associated with it.

MORE INSPIRATION

7. And now, I come to my last point: I believe we need to concentrate on the improvement of the quality of classroom instruction. After all— in the final analysis – it is what goes on within the classroom that is of greatest importance. Let us assume that, as business teachers, we know our subject matter and we know how to present this subject matter in a logical and effective way. Beyond this we need to strive for a quality in our teaching that might be described as inspired teaching. In my opinion this can come about by becoming completely (at least, very nearly) engrossed in our work of teaching.

For business teachers, this will prompt extensive reading of current periodicals about business and about education, it will prompt experimentation within the classroom, it causes us to be not only aware of varying abilities and interests of our students, but also it will cause us to seek to find out what these abilities and interests are. Inspired teaching will enable us to develop within our students the highest levels of achievement of which they are capable and we, as teachers, are capable of developing. If we can do this, nothing greater could ever be expected.

FRANK M. HERNDON

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JOHN A. BEAUMONT

A Concept of Education for Distribution

(EDITOR'S NOTE: *Mr. Beaumont poses for us the significant concept of a discipline called distribution. From this philosophical position he questions the assumption, apparently held by some, that distributive education is in reality a methodology – a cooperative education plan involving on-the-job experience. Rather, he upholds the view that "methodology has been permitted to becloud the fundamental purpose of the program."*)

THE TERM "Distributive Education" identifies a program. What the program proposes to accomplish may be expressed as education for the field of distribution. In the 1958 revision of Vocational Division Bulletin I, *Administration of Vocational Education*, the occupations for which this education may be reimbursed are defined in the following words:

"Distributive occupations are those followed by proprietors, managers, or employees *engaged primarily* in *marketing or merchandising* goods or services. Such occupations may be found in various business establishments, *including, without being limited to,* retailing, wholesaling, manufacturing, storing, transporting, financing, and risk bearing. *Distributive occupations do not include trade, industrial, or office occupations.*"

In the breadth of this definition one begins to feel and to understand the concept of education for distribution.

DEVELOPMENT OF THE DISTRIBUTIVE EDUCATION PROGRAM

The development of distributive education has included the following three periods:

1. *The development of employee training.* Quite naturally the first programs that were developed were concerned almost entirely with various aspects of employee training. This was true of both the adult and the cooperative programs.
2. *The development of supervisory training.* During World War II a series of supervisory training programs were organized which were given in practically all the states and territories. These were programs that dealt with how to train employees, how to supervise employees, how to lead a conference, how to improve human relations,

and a series of similar supervisory how-to-do's. For the first time, distributive education programs began to make some impact in an area other than employee training.

3. *The development of management training.* These programs are evolving rapidly in many of the states. Courses concentrate on various aspects of management – some are concerned with administrative management; others deal with the narrower aspects of specific management problems. All these courses serve individuals who are engaged in decision-making.

Thus, an entire cycle of instruction has developed, including employee, supervisory, and management training. It is this continuing cycle of educational programs which should be offered through distributive education. It is most encouraging to realize that there is much evidence throughout the nation to indicate that in many places this complete cycle of training is functioning.

The future of distributive education will in large measure be governed by the acceptance of training or educational responsibilities in these three areas. The implications of this responsibility will reach down into many aspects of the program as more and more responsibility is accepted. It is in regard to these implications that these further comments are directed.

THE DISCIPLINE OF DISTRIBUTION

Education for distribution is only possible through teaching the discipline of distribution All too frequently in the distributive education program, *methodology has been permitted to becloud the fundamental purpose of the program. Methodology, including cooperative work experience, is only supplemental to the concepts of distribution which must be the foundation on which the instructional program is developed.*

Distribution gives time and place utility to goods and services. The study of distribution involves economic principles, marketing, money, men, and management. These subjects combined with a wide range of related areas of study are the basis on which distributive occupational courses must be planned and developed.

TEACHER EDUCATION IN DISTRIBUTION

The teacher education programs will give more attention to the development of technical information in distribution. One is able to give a content depth to this teaching primarily as a result of technical training combined with experiences in distributive occupations.

Experiences in distributive occupations will need to be directed and evaluated. These experiences combined with solid content courses in distribution will qualify teachers competent to provide instructional programs at employee, supervisory, and management levels.

Professional education will be made available to those who possess the technical education and experience essential to sound instruction in distribution. It is impossible to conceive of adequate teacher education programs which do not provide for both technical and professional education.

Another important aspect of teacher education is directing studies and research which provide adequate literature for the future growth of the distributive education program. Students in this field should have access to libraries which include literature in distribution as well as distributive education. Improved reporting of activities in the program will also be encouraged as part of the teacher education program.

THE HIGH SCHOOL PROGRAM

The high school cooperative program is employee training, in that it introduces the student to the field of distribution. The instruction and experiences of the student are concerned primarily with bringing to the student the basic concepts of employment in distribution. As a result of this program the student should be able to find an avenue that will challenge his particular abilities.

Educating the future merchants and distributors of America will require a guidance program which will bring about the enrollment of students who can benefit from the extended goals and the potentials of the program. It will also require an improved curriculum which will provide for economic understanding and concepts of growth potential in the field of distribution. Management concepts will need to be introduced, for many youths after graduating from the high school cooperative program enter into management training programs which quickly lead into positions of responsibility.

Further, the classroom program will need to be supplemented with specific instruction that will give each student an opportunity to grow and develop in the occupation of his choice. An instructional program, consisting merely of general information, denies the student the vocational instruction to which he is entitled as an enrollee in a cooperative distributive education program. Instructional problems increase with the development of specific instruction for each of the

occupations represented in a class, but these problems can be overcome by capable teacher-coordinators.

Another implication for the cooperative program is the improvement of instruction in the training station. Some companies are already concerned with the development of instructional programs for distributive education students. There is a need for more *planned* programs of instruction in the smaller organizations. The coordinator will have to be responsible for developing a program of planned experiences for each student. This will demand improved techniques of instruction on the job. It will be the responsibility of the teacher-coordinator to suggest tactfully and helpfully procedures that will enable supervisors to perform their responsibilities as on-the-job trainers of distributive education students.

POST HIGH SCHOOL PROGRAMS

The post high school cooperative program will become a natural extension of the high school cooperative program. It is only within the framework of a cooperative plan that distributive education offers a longer range educational program which includes basic concepts that are an essential part of training is distribution. Further, there are a wide range of distributive occupations for which it is impossible to give instruction at the high school level. The immaturity of high school students makes it unwise to place this student in a wide range of distributive occupations for which long-range basic training, as provided in a cooperative program, could be developed.

In a general sense, all occupations in the field of outside selling are usually removed from the high school cooperative program. Such occupations are those engaged in by salesmen who sell insurance, real estate, building materials, automobiles, advertising, industrial products, and goods distributed by wholesalers. All of these selling occupations are complex, require maturity, and what is more important, in many cases deal with the selling of items which are large in dollar value and have an important effect on consumers.

Another area of occupations which is not generally open to the high school cooperative student might be termed supervisory and managerial. Such occupations would include junior executives in department stores, supervisory personnel in supermarkets, managers of small businesses – including among others, sons and immediate relatives of owners – and supervisory personnel in wholesaling and in hotel operation.

The organization of post high school programs will allow for great

flexibility. Wide geographical areas may be served where necessary. In densely populated areas specialized programs can be developed to meet specific interests. Educational techniques may vary, ranging from a semester in class to a semester on the job, to the usual half-day in class and half-day on the job. Much progress will take place in the development of distributive education at the post high school level.

ADULT EXTENSION ACTIVITIES

The extent of the opportunities for education in distribution is readily apparent in the adult extension program. Currently the adult program enrolls eight individuals for each one enrolled in the cooperative program. This differential should increase, *for the future of distributive education lies in serving adults* whether they be employees, supervisors, managers, or proprietors.

The extension of the adult program will require the development of the new and varied practices. There is a noticeable trend towards the employment of full-time adult instructors. These instructors may serve in a local community. More frequently they serve a wider geographic area, bringing instruction to deserving small businessmen and their employees in small and medium-sized communities. There is also evidence of more long-range adult programs consisting of a planned curriculum including a substantial number of individual courses. Programs are also being developed for a much wider range of distributive occupations, and there is a greater depth of instruction being made available in these varied occupations.

CHALLENGES IN EDUCATION FOR DISTRIBUTION

Distributive Education will begin to reach its full potential when there is a broader awareness of its three major responsibilities which are: (1) to provide educational programs for individuals engaged in distribution, (2) to aid in improving the techniques of distribution, and (3) to encourage the increased acceptance of the wide range of social and economic responsibilities which accompany the right to engage in distribution in a free, competitive society.

JOHN A. BEAUMONT is Chief, Distributive Education Branch, Division of Vocational Education, US Office of Education. For a number of years in Illinois Mr. Beaumont provided leadership at the state level for business and distributive education. In that capacity he was a well-known and active participant in professional business education organizations.

WHAT OTHERS ARE SAYING

OFTEN ITEMS OF INTEREST TO BUSINESS EDUCATORS appear in non-business education periodicals. Sometimes an entire article may be of interest; other times, only a thought or two. In this section appear items from recently published periodicals. At the one extreme are abstracts of articles, and at the other, brief quotations.

EARL A. DVORAK

THOMSON, PROCTER

"Economic Education and Public Policy"
The School Review, Summer 1958, pp. 152-163
(Copyright 1958 by the University of Chicago)

"Economic illiteracy is a dangerous indulgence for a democratic society; private folly cannot create public wisdom.

"Economics is an uncommon technique for organizing common sense; it is the disinterested study of the interplay of individual self-interest.

". . . Economics is not wholly understood or widely accepted by the civilization that created it. It is a dark and obscure subject; its practitioners are quarrelsome; almost any economist worth his salt can dip into his bag of tricks and emerge with a dozen different answers to some simple question. Apart from these obvious faults, the public is leery of economists for many reasons, good, bad, and indifferent. Attitudes of several groups are symptomatic.

"Group One includes the Total Abstainers. They judge the subject as equal parts boredom and mystery and will have none of it . . .

"Group Two includes the Self-made Experts. For them economics holds no mystery. They make the leap from personal experience to universal principles without pause to examine what others have thought or written.

"Group Three encompasses the Partisans. Burdened with very little knowledge about the subject in general, they have a lively sense of what is needed to advance their interests in particular.

"Economic education should enable the rational citizen to walk up to a practical problem, lay hold of the appropriate economic tools, and hammer out a successful solution. And, to prevent misuse and overemphasis, he should see the connection between economic insights and other dimensions of social life.

"I doubt that we shall promote these objectives by insisting on separate economics courses in grade school or high school. We shall have to infiltrate and insinuate. Economics must be admixed with social studies; it must inform history, supplement literature, and illuminate mathematics.

"To sum up then: Freedom, depends on knowledge. The society that does not know itself can be neither wise nor free. Economic knowledge is a vital part of the knowledge we need to make sensible choices about the great problems of social life in a time that places peculiar burdens on individual rationality."

SHUMSKY, ABRAHAM
"Teachers Explore Their Attitudes toward Research"
Educational Research Bulletin, 37:31-38, 56, February, 1958

"The purpose of this article is to report an attempt of a group of teachers – graduate students taking a course in research – to explore and understand their attitudes toward research.

"The analysis of the attitude finder proved to be self-revealing. The group's attitude toward research is governed by two sets of values. On one hand, the group introjects the cultural norm of the authority of research and professes allegiance to the importance of experimentation as a way of growth for the teaching profession. On the other hand, when the group members have to face the personal implications of research as consumers or producers, they experience resistance and express it in negative attitudes. In other words, many times the question is raised of whether we are ready to apply a specific research finding to our work or to test a new idea in the classroom, we tend to hear a deep echo inside us which says, 'Don't try!' The educational consultant will find it most difficult to help teachers do action research, that is, improve their school practices in a scientific way, unless he is able to find ways of helping teachers face their attitudes toward action research."

WRIGHT, ROBERT C.
"What Makes a Leader?"
The School Executive, 77:68-69, October, 1957

A study was made of leadership characteristics of public school administrators by the author. Community participation was found to be *the* key to successful public school administration. It is important for the public school administrator to have personality traits that enable him to work well with people. Self-confidence, a sense of humor, friendliness, and an optimistic outlook on life are desirable.

The nine administrators named most frequently as important leaders in public school administration agreed that a functional liberal arts education with wide study in the humanities was the best

background for school administration, that teaching experience is important, that almost anything worth learning can be helpful to an administrator, and that courses in professional education are valuable, especially if they are taken prior to or along with actual experience.

DRUCKER, PETER F.
"Marketing and Economic Development"
The Journal of Marketing, 22:252-259, January, 1958
(Reprinted from The Journal of Marketing, published quarterly by the American Marketing Association.)

"In the new and unprecedented world we live in, a world which knows both a new unity of vision and growth and a new and most dangerous cleavage, marketing has a special and central role to play. This role goes:

- Beyond 'getting the stuff out the back door';
- Beyond 'getting the most sales with the least cost';
- Beyond 'the optimal integration of our values and wants as customers, citizens, and persons, with our productive resources and intellectual achievements' – the role marketing plays in a developed society.

"In a developing economy, marketing is, of course, all of this. But in addition, in an economy that is striving to break the age-old bondage of man to misery, want, and destitution, marketing is also the catalyst for the transmutation of latent resources into actual resources, of desires into accomplishments, and the development of responsible economic leaders and informed economic citizens."

GRATTAN, C. HARTLEY
"The Predicament of Adult Education"
The Colorado Quarterly, 6:409-416, Spring, 1958

"Adult education is . . . a rather dreary suburb of education . . . This is utterly disconcerting – even sad – to those who see adult education as potentially one of the most important instruments for the diffusion of significant and saving knowledge and understanding in a democratic society and who, moreover, see in the diffusion of such knowledge and understanding one of the major guarantees that such a society will successfully persist and rise to higher levels of excellence in the future.

"On the one hand adult education has rather persistently cultivated its overly familiar limitations by focusing to an astonishing

extent, particularly in the United States, on a tremendous range of vocational practicalities and on the other by tempering the rigor of practicality only with avocational frivolities.

"As of this moment liberal adult education is *still* a minority segment of the field, with vocational adult education occupying the premier position. This distribution of emphasis is likely to persist for a long time but there is now a reasonable expectation that forces have been set in motion that will slowly tip the balance toward a more and more reasonable angle as additional people discover how very pleasurable it is to exercise one's mind as well as one's hand and feet.

"As this occurs, the kind of program that is currently showing greatest promise – the study-discussion program with specially prepared materials – will pretty certainly attract the collaboration of more and more of the 'intelligentsia,' academic and lay, who prefer to try to communicate with the adult population rather than complain that they are isolated from it. From the other side, a considerable body of people will thus be brought to more acute awareness of their cultural inheritance and the currents flowing in the culture of their time."

SKINNER, B. F.
"The Science of Learning and the Art of Teaching."
The Harvard Educational Review, 24:86-97, Spring 1954

"Denied the opportunity to control via the birch rod, quite at sea as to the mode of operation of the few techniques at her disposal, she [the teacher] spends as little time as possible on drill subjects and eagerly subscribes to philosophies of education which emphasize material of greater inherent interest. . . . Eventually, weakness of technique emerges in the disguise of a reformulation of the aims of education. Skills are minimized in favor of vague achievements – education for democracy, educating the whole child, educating for life, and so on. And there the matter ends; for, unfortunately, these philosophies do not in turn suggest improvements in techniques. They offer little or no help in the design of better classroom practices.

"There would be no point in urging these objections if improvement were impossible. But the advances which have recently been made in our control of the learning process suggest a thorough revision of classroom practices and, fortunately, they tell us how the revision can be brought about. This is not, of course, the first time

that the results of an experimental science have been brought to bear upon the practical problems of education. The modern classroom does not, however, offer much evidence that research in the field of learning has been respected or used. This condition is no doubt partly due to the limitations of earlier research. But it has been encouraged by a too hasty conclusion that the laboratory study of learning is inherently limited because it cannot take into account the realities of the classroom. In the light of our increasing knowledge of the learning process we should, instead, insist upon dealing with those realities and forcing a substantial change in them. Education is perhaps the most important branch of scientific technology. It deeply affects the lives of all of us. We can no longer allow the exigencies of a practical situation to suppress the tremendous improvements which are within reach. The practical situation must be changed."

PROFESSOR B. F. SKINNER *is Director of the Psychological Laboratories at Harvard University, the author of the classic* The Behavior of Organisms *and of the recent* Verbal Behavior. *His actions match his words, for with his "teaching machine" he has been busy applying the findings of the experimental psychology of learning to the problems of education. His incisive comments are quoted here because they make a particularly apt springboard for Dr. Stolurow's two articles on "The Psychology of Skill," the first of which appears in this issue of the* JOURNAL. *– Leonard J. West*

Meet The Associate Editors –

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Experience: 1947-1949 – Assistant Professor of Business Administration, Pacific University; 1951 – Visiting Lecturer for summer session, University of Colorado; 1949 – Associate Professor of Business Education, Indiana University and co-sponsor of Theta Chapter, DPE.

Publications: One monograph, "Review of Research in Business Education"; numerous articles in business education and general education journals.

WEST, LEONARD J.

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LAWRENCE M. STOLUROW

The Psychology of Skills[1]

Part I: "Basic Concepts and Principles"

MAN'S BRAIN has transformed the world and discovered the power to destroy it. A billion or more years of evolution were required to develop the intricate three pound mass which has made this possible. However, only in the last century and a half has the human brain begun to acquire some understanding of itself. Two lines of research have contributed to this development – the neurophysiological and psychological investigations of brain and behavior.

While our neurophysiological knowledge concerning the process underlying the learning and performance of skills has advanced markedly over that of twenty-five years ago, there are still many important gaps to be filled (see Hebb, 1949). Accordingly, although it may ultimately be possible to offer neurophysiological and even biochemical explanations of behavior processes, at the present time it is necessary to depend more upon behavioral data and psychological concepts to describe these processes – while recognizing that behavior and neural functioning are correlated phenomena.

A psychology of skills is an explanation of the ways in which human performance becomes modified. It utilizes, on the one hand, observable stimulus and response events, and, on the other hand, theoretical notions that may be derived from various sources, including neurophysiology. The central problem is to determine how we learn a skill – to describe the modification of performance.

LEARNING

CONTRARY TO common belief, learning is a continuous process. It is *not* something that goes on only when the individual is being modified in a socially desirable way. Individuals, as long as they are awake and active, are learning. Learning includes all modifications of behavior that result from past experience, with the exception of those changes relatable to fatigue, to the effects of drugs, to sensory

[1]This paper is adapted from a presentation at the Sixth Annual Summer Business Education Conference, Department of Business Education, College of Commerce and Business Administration, University of Illinois, Urbana, Illinois, July 1958. This is the first of two parts — Part II will appear in the next issue. The author would like to express his gratitude to Dr. Leonard J. West for many helpful suggestions.

adaptation, or to maturation. Learning, when used in this way, is a broader concept than that used by many non-psychologists. For example, one restricted use of the term is to the *improvement of performance*, to the *gaining* of a new meaning, or a new *understanding*. In this limited view, learning is associated only with improvement in socially acceptable activities – driving a car, multiplying two numbers, typewriting, or speaking a language. Furthermore, in the non-psychological use of learning, losing a skill that one once had, or forgetting some fact, is not related to learning; the loss of a skill is considered a separate process. This restriction also is contrary to accepted psychological thinking.

With the exceptions indicated in the previous paragraph, all changes that take place in behavior following experience, whether socially desirable or not, or whether positive or negative, are learning effects to be explained eventually by a comprehensive theory of learning.

THE PRINCIPLE OF ASSOCIATION

The basic process in learning is *association*. The description of this process is the principle of association: stimuli, or patterns of stimulation, acting when a response is made, will tend, on later occasion, to call out that response. It says, for example, that the typist who strikes with his left little finger when he sees a *Q* will again tend to make that response the next time a *Q* appears in his copy.

The foregoing example, however, represents a moderately advanced stage of skill. At the start, the sight of a letter in the copy does not directly elicit a stroking response. Instead, the stroking response, at the beginning, is made to specific instructions, verbalized either by the learner or by the teacher. The effective stimulus for this response, at the start, is not the simple perception of *Q* in the copy, but rather, it is a compound of self-instruction – "with left little finger strike *Q* key" – and observation of the *Q* key. The learning task is to transfer the response originally made to this compound of verbal instruction and sight of key to an earlier experienced event – the sight of the letter *Q* in the copy (or to the sound of *Q* under dictation conditions, or to the thought of *Q* under composition conditions). Accordingly, it becomes useful and especially appropriate to describe the initial stages of skill learning in terms of stimulus substitution, of the transfer of a response from one stimulus, or stimulus compound, to another stimulus.

A primary condition for accomplishing stimulus substitution or

transfer is *temporal contiguity*, or closeness in time.[2] If, and only if, the response follows closely on the heels of perception of the new stimulus will it become transferred to that new stimulus. Accordingly, we may describe the process of association as a principle that says: responses formerly elicited by one stimulus become associated with another stimulus when the response follows close in time to the new stimulus. This is known as S-R or stimulus-response contiguity. Other important contiguous relationships must also be maintained for optimal learning. They will be mentioned shortly.

Since contiguity is such an important condition for learning, it is necessary to identify the ways in which time factors can vary from task to task. To do this, it is necessary to distinguish among three stimulus functions: (a) the cue function; (b) the eliciting function; and (c) the reinforcement function.

STIMULUS FUNCTIONS

The stimulus as a cue. A stimulus can function as a cue if: (a) it attracts the learner's attention; (b) it precedes closely the desired response; and (c) it fails to produce an interfering response. The cue in a learning task is like the cue in acting. It is a stimulus to which the learner is sensitive – something he can see, hear, smell, touch, etc. Its function is that of a signal or sign – like the typist's sight of a letter in the copy or the stenographer's hearing a word in dictation. As mentioned earlier, at the start of learning, responses are *not* made to the cues, and the task is to transfer the critical responses, originally made to other stimuli, to new cues.

Sometimes cues are derived from stimulus objects or persons – things in the external world – e.g., the traffic light which tells you when to cross the street. At other times, cues are furnished by internal bodily sensations (e.g., the hunger pangs that send you to the dinner table). Cues, in other words, may come from external or from internal events. In fact, a basic concept in the understanding of skill development is its dependence upon a shift from external to internal control of responses and response sequences.

For example, the typist who must first perceive the separate letters in his copy in order to type the word *the*, comes to be able to make the later responses in typing this word on the basis of the internal muscular sensations arising from having made the earlier responses.

[2]Many psychologists consider temporal contiguity a ***sufficient*** condition for learning. Others consider it necessary, but not sufficient; they believe that reinforcement is the primary condition. However, all would agree that both are more effective in producing behavior change than either one alone.

The stenographer who first writes the word *place* in Gregg shorthand in four virtually distinct segments later is able to write the latter parts of the outline on the basis of the sensations of movement (kinesthetic cues) arising from having written the earlier strokes in the outline, At this stage, the cues are produced by earlier responses rather than by letters or sounds in the external world. In skills, external cues gradually become less and less important as they are replaced by response-produced or movement-produced cues. This is described as the process of internalization of cues. It is also referred to as automatization and as response chaining.

The process of internalizing cues which takes place in the myriad of skills learned by adults generates response chains of varying length and complexity. These chains form whenever certain invariant sequences of movements are repeatedly practiced. Serial tasks are those in which the external stimulus events that provide the initial cues and elicit responses appear repeatedly in a stable sequence.

The critical conditions for skills in which high dependence is placed on response-produced (or movement-produced) cues are: (a) these cues must reliably precede the next response; (b) the cues must be in close temporal contiguity to the next response; and (c) the cues must be distinctive. Cues are constantly in competition with one another for responses, and only when these three conditions obtain will the relevant cues win out and thus lead to advances in performance.

The *distinctiveness of cues* permits the learner to make an appropriate response. The color-blind person, for example, cannot discriminate between the colors of the traffic lights that serve as cues to stop and go. When one stimulus cannot be distinguished from another, we say that there is *stimulus generalization.*

Two techniques bring about *stimulus discrimination*[3] (see Stolurow, 1953, pp. 427-480): (a) make competing or confusing stimuli maximally distinctive from one another; and (b) use *differential reinforcement* of responses. Thus, if a Gregg shorthand student reads the outline for *pale* as *bale:* (a) promptly remind him of the difference in length between *p* and *b* (increasing distinctiveness); and (b) tell him immediately when wrong, "That's wrong"; and when he reads the outline correctly, "That's right." Another illustration of increasing the distinctiveness of the relevant cue may be seen in the

[3]It also may be mentioned that, at the response end, the parallel phenomena are *response generalization* and *response differentiation.* For example, to achieve response differentiation, the Gregg shorthand student is told to exaggerate the size of large circle vowels so as not to confuse them with small circles.

practice of having the novice typist vocalize or pronounce sharply the letter he perceives in his copy (as a means of reducing potential interference from irrelevant cues such as other letters in the copy, the noise of other typewriters, etc.).

Cue characteristics of stimuli may differ in *quality* (red light, green light), in *quantity* (*small* circle, *long* line, *loud* noise), or in *timing* (onset, duration, termination – e.g., a short and two long rings as a signal on a particular party line phone). In some tasks, quantitative aspects are important; in others, qualitative or temporal ones. Further, any one or set of these factors can determine the distinctiveness of a cue. Within the framework of an existing task, practice conditions should be conducted so that (a) the relevant cue reliably precedes the response; (b) occurs in close temporal contiguity to it; and so that (c) responses are selectively reinforced – e.g., the learner is given immediate approval or information that his response is correct and is not so "rewarded" when his response is incorrect. These three conditions are critical (a) for discriminating among competing cues (or for differentiating among competing responses), (b) for attaching cues to the responses to which they belong, and (c) for the utilization of response-produced cues.

The stimulus as an elicitor. Whereas the cue value of a stimulus refers to its attach*ability* to a response, the elicitor value of a stimulus refers to its attach*ment* to a response. Implicit in the earlier definition of the principle of association as the transfer of a response from one stimulus to another is that the cue does not initially have the power to *elicit* or draw forth the required response. The sight of a milk bottle does not make the infant salivate or suck; however, the insertion of the nipple in his mouth does. Milk-on-the-tongue is the elicitor, the eliciting stimulus. In contrast with the cue (the sight of the bottle), the elicitor (milk-on-the-tongue) reliably and quickly produces the desired response. Note, however, that the infant soon comes to make sucking responses at the sight of the bottle before the nipple is inserted in his mouth. While this illustrates nothing socially desirable, it does illustrate vividly the notion of stimulus substitution.

Any stimulus that *impels* action is an elicitor of that action. Milk-on-the-tongue is an elicitor of sucking, a cinder-in-the-eye is an elicitor of an eye blink and of a tear, etc. Some stimuli elicit a response as a result of inborn neural connections. They are called reflexes. Others acquire this capability by starting out as cues for a response and, through experience, achieve the status of elicitors of the particular response. Our culture makes some acquired elicitors common to

many people. Language is the most general system of acquired elicitors; one we depend upon more than we sometimes realize.

For most school learning situations, we depend upon language to serve as elicitors, although pictures and demonstrations also are used. Verbal instructions, nevertheless, carry the main load as elicitors. The teacher tells the child the response that is to be made and sometimes demonstrates it. Three characteristics of elicitors are important: (a) their reliability (the dependability with which the response can be produced); (b) their speed of elicitation (the latency of the response, the interval between elicitor and response); and (c) their precision (the correspondence of the elicited response with the demands of the new task).

Occasionally it is necessary to wait for the learner to *emit* a response, but this is not an all-or-none affair, since elicitors are more or less effective in releasing the precise response required in the new situation. When we say that the learner is required to *discover* the correct response, it is another way of saying that he must *emit* the response (see Skinner, 1938).

The more nearly it is possible to identify stimuli that are efficient as cues and as elicitors, and to control (through temporal scheduling) both cue and elicitor, the more efficient will be the learning situation. In early typing learning, for example, a training procedure which appears to best satisfy the aforementioned requirements is one which uses as elicitors sharp vocalization coupled with looking at the key. The saying coupled with the looking produces the desired key-stroking response most dependably, most quickly, and most faithfully. Further, if the copy is dictated, the cue (sound of letter in ears) occurs close in time to the elicitors and these, in turn, to the key-stroking response.

The stimulus as a reinforcer. Whereas eliciting stimuli precede the desired response in time, another class of stimuli follows responses. These are known as reinforcers. A reinforcer is any stimulus that increases the probability of a response the next time the cue stimulus is repeated. Reinforcement is a necessary consequence of response if changes in performance are to take place. In fact, performance or behavior can be said to be shaped by its consequences. A variety of reinforcing events are known and much more is known about some types than about others. One or more of the following functional properties of stimuli characterizes a reinforcer: (a) provides *reward* (a drive reducer, satisfies a physiological need such as hunger); (b) removes an intense or noxious stimulis (e.g., pain reducer) or *re-*

duces intense stimulus; (c) informs, provides *knowledge of results* (tells the learner whether or not his response is correct); or (d) *punctuates* – produces an abrupt change or shift of attention to a new cue or to the same cue on another occasion.

Different stimuli may perform these functions with varying efficiency. For example, with knowledge of results where there are only two alternatives, knowing that a response is right or that it is wrong is equally informative. When there are many ways in which the learner can be wrong, knowledge that a response is right is more informative than is knowledge that it is wrong.

If the learner is told what the right response is after he has made the wrong one, then that information is not a reinforcement, although it is called knowledge of results. The information is an elicitor, a prompt. Its function is to elicit either the correct response or its surrogate in the form of a verbal description. In the presence of task cues, therefore, it becomes associated with them. Thus, if the learner flicked a switch when he should have turned a knob and is told "light on means turn knob," then when the light comes on next, he could say to himself, "turn knob," and this acts as an elicitor of the correct response.

In school learning situations, knowledge of results is crucial. Either through external sources or through knowledge he already possesses, the learner must know – instantly – whether or not his responses are correct if his performance is to undergo progressive modification. Temporal contiguity of response and reinforcement is a critical condition.

Tied stimulus properties. Before leaving these three stimulus properties – cue, elicitor, reinforcer – it may be useful to point out that in some learning situations two of these properties may be different aspects of a natural stimulus event. In the example of the milk bottle used in feeding the infant, the sight of the bottle is a stimulus with cue value, the nipple secreting milk on the tongue is an elicitor, and the milk in the stomach is a reinforcer. To an adult learner, instructions often serve as the elicitor, and the learner, simply by repeating them, provides his own reinforcement. For example, "with left little finger strike the *Q* key," could serve both to elicit and, if repeated immediately after response was made, to reinforce.

TEMPORAL CONTIGUITY

From the foregoing, it is apparent that contiguity figures in learning in more than one way. It is important to the interval (a) between

cue and eliciting stimulus; (b) between cue and response; and (c) between response and reinforcement. For brevity, these intervals can be described as the S-S, S-R, and R-R intervals, respectively.

Tasks for which the eliciting stimuli are identifiable and manipulable by the teacher can be more efficiently managed, and therefore, are more quickly learned than tasks in which the teacher must wait for the learner to emit the desired responses. Accordingly, for *emitted* responses, S-R and R-R contiguity become candidates for particular attention. Techniques must be used which, with minimum delay, encourage responses and inform the learner about the correctness of his responses.

Commonly, too, emitted responses may *not* take exactly the form ultimately desired. Whenever this happens, the response has to be *shaped* or gradually modified with repetition and selective reinforcement of desired components. For example, in the beginning, the typist's motions are awkward, excessive, and diffuse. By increasing the pace – the rate at which the typist responds – some awkward components drop out. Similarly, by changing the learner's motivation – increasing it or decreasing it – responses can be altered. Since no elicitors are available, shaping must be accompanied by indirect and imprecise means.

PRACTICE

A question that arises in connection with the principle of association is why skills are not learned more rapidly. Why is it necessary to practice? The answer to this question is one which reveals the essence of a skill. Practice is necessary for the mastery of a skill because of an important, but easily overlooked, characteristic of skills. Skills consist of the ability to make many different, but related, responses to many similar appearing, but different, situations. Even the simplest skills such as learning to button a button require that much more than a few associations be formed between cues and responses. For example, holding the button, turning it, pushing the button through the hole, and so on. Think of the variety of conditions under which even this simple skill is performed by you. You button a shirt, or a blouse, in the front or the back. You button with one hand or the other, and with small or large buttons. Regardless of the many variations, once the skill has been acquired, the performances become relatively smooth.

Another reason skills take persistent practice is that they require not only the learning of correct movements, but also the *unlearning*

of wrong or unnecessary movements. For example, in learning to go from a manual to an electric typewriter, one must eliminate the hand motion causing the carriage to return and learn, instead, to press a button which automatically returns the carriage to the margin.

SKILL

From these considerations, it is apparent that to the psychologist the term skill means the ability to make many variations in response to a large number of variations in the situation. A skill is *not* based upon learning a one-to-one relationship between a cue and response, but rather upon a large number of cue-response relationships. For example, think of the large number of variations in preceding finger positions for the skilled typist in hitting the letter *A*. It involves not one response but rather the learning of a variety of responses, all nicely adjusted to a variety of preceding activities – different situations. Striking a particular typewriter key is a response that must be rapidly and accurately made, regardless of variations in the stimuli that serve as its cue if the typist is to be proficient. For example, the typist may have typed the letter *A* after seeing the word *map* or after hearing the word *date* or after thinking about a note which is being prepared that contains the word *hand*, and so on. In each case, the preceding finger movement is different (m, d, h), as is the particular source of language information leading to the response.

Careful observation reveals that the same pattern of cues seldom, if ever, is repeated. Therefore, a large number of associative connections must be formed before a skill is established. Each time the behavior is practiced, some variations in the cues occur. While a large number of variations occur from time to time, under most conditions of practice, the stimulus variations are finite and more or less limited. Thus, with increased practice trials, it is more likely that the variety of cues which might later appear will already have been experienced. Consequently, they will be associated with responses sufficient to accomplish the desired objective. This, of course, is the purpose of practice.

SKILL COMPONENTS

Every complex skill can be analyzed into three basic features: (a) the cue, (b) the response, and (c) the associative connections. Recognizing that each skill is a general capability for accomplishing a particular goal under varying conditions, it is apparent that an analysis of a complex skill would reveal that each of its features was a

class of things – a set of cues, a set of responses, a set of associative connections. Thus, in practicing, the learner increases the number of cues, of responses, and of associative connections in his total skill.

While underpinned by the same basic process of association, for heuristic reasons, it is useful to describe separately the learning associated with each feature of a complex skill. As related to its cues, the associative process is called *stimulus learning;* as related to its responses, it is called *response learning;* and as related to its internal associative S-R connections, it is called *mediation learning.* Thus, the trainee's previous experience is relatable to one or more of these aspects of the to-be-learned skill.

Examination of learning to typewrite from printed copy permits us, for example, to specify the stimulus, response, and mediation learning which relates to this skill. Learning to read the copy is stimulus learning. Learning to strike keys with the proper ballistic motion is response learning. Learning to connect the motion of a particular finger in a particular way with a particular cue involves mediation learning.

SKILL LEARNING

To better understand the way skills are learned, it may be useful to consider some examples. How does an animal trainer develop a new act? Many think he begins by writing out a detailed script which he thinks will have public appeal; that he then buys and trains animals to perform it. This is not the way it happens, however. Rather, he *first* notices animals who make appealing responses, e.g., standing on their rear legs, jumping through a small opening. Then he determines a way to get these animals to perform the desired act. With a notion about how to do this, he then secures the animals and trains them. This brief description of critical events reveals several things. One is that a particular type of training is given only to an animal already known to be able to perform the required response. Another is that the animal is known to be capable of differentiating the particular cue. Both are important. For example, dogs will obey verbal commands, but except for the hypothetical hound of humor, no one has taught a dog to talk. Both factors are illustrated by the sea lions who were observed in their native habitat bouncing objects from their noses and were later taught to bounce balls in this way. The conclusions illustrated are that to learn a skill: (a) *the learner must have the required response in his repertoire* – it must be something he can do, and (b) *the learner must be sensitive to the cues with which the*

response is to be associated. In learning to typewrite, for example, the learner must be able to make the required ballistic movements and he must make them in response to either seen or heard language materials.

Another example reveals an additional condition important for skill learning. The dancing bear of the gypsies was taught by chaining him to a metal plate laid over a fire. The bear moved his feet to lessen the pain, and, as he did, the gypsies played. Later, the music "made him dance," although the fire was no longer there to hurt his feet. The responses he previously made to the heat were transferred to a new stimulus, the music. Thus, the music, having been contiguous with the dancing-to-avoid-heat responses, became the cue to "dance." Illustrated is this principle: If a means for increasing the likelihood of the desired response – an eliciting stimulus – is known and available, then it should be used in order to maximize the opportunity for the response to occur contiguously with the stimulus that is to be its cue. It also is illustrated by the typing teacher's instruction to the students to move their fingers in a particular way and to use particular fingers with particular keys. These instructions are analogous to the fire for the bear who is taught to dance. The teacher's *instructions are elicitors.* They get the students to make particular kinds of responses. With this as their purpose, they should be designed and used to achieve this objective in the most effective manner. One consideration in making them effective is to achieve S-S contiguity.

Another condition of skill learning also is revealed by the example of the bear and by practice that permits the typing student to observe the letters on the keys as he strikes them. This is the critical condition of cue-response or S-R contiguity. The heat of the fire increases the likelihood of foot responses *while the music is being heard.* Similarly for typing, the instructions to look at the keys is a means of increasing the likelihood that *a particular letter is observed* as a particular ballistic finger motion is made. Looking at the letter on the key just as it is struck is an example of the essential condition for learning – close contiguity of cue and response. Also, if the learner observes either his finger as it hits the correct key or the letter as it is printed on the paper in his machine, he receives immediate reinforcement, response-reinforcement, or R-R, contiguity. Hence, watching his finger motions during the early learning stages achieves two things at once – maximum S-R and R-R contiguity.

Further examination of these examples reveals other conditions

that are important for the learning of skills. The trainer of the sea lions and of the jumping dogs keeps the animals a little hungry and gives them, almost immediately after they have performed correctly, a little food to eat. The dancing bear is motivated by pain and rewarded by relief from pain if he lifts his feet. Thus, we see two more factors in operation. These factors are *motivation* and *reinforcement*. Each can be stated as a principle that is useful for instruction. The principle of motivation is that the learner should want to make the response or perform in the manner required by the skill. The learner should want to learn or to achieve the goal that becomes possible when the skill is acquired. The principle of reinforcement is that correct responses should be followed *as quickly as possible* by a shift in attention, knowledge of results, by reward, by something which the learner wants. Actually, in skills, fractions of a second are crucial.

SKILL TEACHING

The six factors abstracted from these examples can be stated as principles and arranged into a convenient sequence: (a) The teacher should motivate the learner, get him to want to learn the skill. (b) The teacher should identify clearly the stimuli that are to become the cues for the response and make sure that the learner can discriminate them. (c) The teacher should determine an efficient way to get the learner to make responses that will achieve the goal. (b) The teacher should set up the learning situation so that the desired responses can occur as close as possible to their cues. (e) The teacher should reinforce each response as soon as it occurs. (f) The teacher should provide the learner, not only with opportunities to practice under the conditions just described, but also with cue and response conditions that vary from time to time. These variations should be deliberately introduced if the objective is to develop a high level of skill.

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Reader's Choice

BOOKS PERTAINING TO BUSINESS EDUCATION, *without question, are of value to the business educator, and he is likely to be familiar with their content. Many books pertaining to disciplines other than business education, especially those having some relationship to business education, may be just as valuable. However, they may not be available to the business educator or he may not have time to read them completely. Therefore, this feature section is devoted to a review of those books pertaining to disciplines other than business education in the narrow sense.*
Earl A. Dvorak

YOU AND MANAGEMENT. *Daniel R. Davies and Robert T. Livingston,* New York City: Harper & Brothers, 1958. 272 pp.

THIS BOOK is directed primarily to those who are considering management as a career or to those who hope to advance in management.

To be a manager, say the authors, you need: (1) a clearly seen, attainable goal; (2) the will and drive to reach the goal; (3) certain personal qualifications, e.g., an I.Q. of 120; and (4) a plan of action. The book attempts to aid the reader in developing a personal plan and in understanding himself and the role of the manager. The principles of management which are presented are said to be applicable to the operation of all types of organizations – to nonprofit, service organizations as well as to business firms.

Today's manager has a broad, enlightened outlook; he freely accepts his social responsibilities. He is aware of his role as a leader, as a consultant, as a teacher, and as a symbol of the organization which he represents. Not only is he a problem-solver and a decision-maker, but he is an expert in communications. His is a broad responsibility – for funds, facilities, personnel, product development, production, marketing, and community relationships.

The well-informed manager is now aware that man is, at one and the same time: physical, economic, psychological, sociological, anthropological, and spiritual. Recently developed concepts of group theory permit the manager to perform with greater clarity, vision, and understanding. He studies not only the formal organizational structure but the informal structure, the grapevine, and social patterns of behavior.

A manager must understand himself; he must be sensitive to people and skillful in working with them. But to these must be added *perspective* – "breadth and depth of insight that comes with maturity, with education, with experience." Keeping up to date demands

knowledge of many developments that are new and strange: Boolean algebra, game theory, cybernetics, and feedback, to name a few.

The authors write in an easy, conversational style, yet probe with sufficient depth to provoke thought and penetrating self-evaluation. Most chapters close with check lists and other devices for self-appraisal and testing.

A word of warning appears in order to those who use this book as a "first reader" in management. The overabsorption of the authors in group theory and other recent contributions of the social sciences results in a lack of balance and a neglect of some of the established principles of management. On the other hand, other writers have too often ignored psychological and sociological considerations, and the book provides a concise summarization of the newer concepts.

The book may be recommended for collateral reading in management courses and for the guidance of superior high school students with executive potential. Business teachers will find the book helpful in broadening their viewpoints and in bringing fresh insights to problems of management. For those interested in guidance, the book supplies valuable reference material. An excellent annotated bibliography is included as a guide to further reading.

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ARE YOU LISTENING? *Ralph G. Nichols and Leonard A. Stevens,* New York City: McGraw-Hill Book Company, Inc., 1957. 235 pp.

ARE YOU LISTENING? The title seems appropriate. It might have asked: How much of what you hear do you comprehend? Are you sure you are getting the ideas the speaker wants to convey? Are you a good sounding board for those who need to talk? This unique book may contribute a clue to the solution of some recurring teaching problems. It might suggest changes in pedagogical methods and techniques.

Basically, the book is concerned with communication. It considers, simply and clearly, by means of stories and examples, the importance of oral communication and the barriers to understanding which may be built up by defective listening habits. The writers are Dr. Ralph G. Nichols, Chairman of the Department of Rhetoric at the University of Minnesota, and Leonard A. Stevens, writer and consultant in industrial communications. They seem well qualified by experience to question our listening abilities, and to suggest means by which these abilities may be improved.

Listening, the authors maintain, is a skill and a social activity which may be developed by practice through the use of certain techniques. They review the structure of the prepared speech and the patterns of conversation, to point out listening techniques which may help in understanding the content of messages in these forms. Cautions are given regarding the effects of "emotional filters" and "word barriers to learning." Bad habits of listening are detailed. Pencil-and-paper listening (note taking) is discussed. The need for critical listening is emphasized through an analysis of common propaganda techniques. Some individuals feel a pressing need to talk about their problems. For their sympathetic audiences, the role and value of "nondirective" listening are explained. Finally, a short chapter is devoted to each of several situations in which skillful listening is important: executive work, salesmanship, conferences, the family circle, and the school.

This book should be challenging to educators. Listening is described as an area of neglect in classroom instruction. Educational attention, the writers state, has been focused upon reading as the primary medium of learning, with little emphasis upon speech, and almost no concern for the skill of listening. Some evidence indicates that first-graders listen well, that attentiveness to oral communication diminishes through the upper grades, and that less than one third of the students in high school listen attentively to oral instruction.

Although the book is described as the first close analysis ever made of listening, the subject has not escaped attention. The bibliography lists 46 references to writings in the field during the past two decades. Educational institutions have recognized the problem. Listening instruction, the writers report, is currently offered in 22 colleges and universities, in some public and parochial schools, and in management training in business and industry. They predict that it will spread throughout the entire educational system.

It seems apparent that the writers chose deliberately a simple form for conveying their convictions about the listening abilities of the American people. The style of writing is informal. Ideas are expressed through the use of concrete situations. The book is not profound. It is not a painstaking analysis of research. It is, rather, a provocative introduction to an area of inquiry in which some communication problems are evident.

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